

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A method for making a colorful ~~three-dimensional~~ three-dimensional model comprising steps of:

- inputting ~~three-dimensional~~ three-dimensional original measured data;
- reconstructing mesh models with regular data;
- abstracting color information;
- harmonizing color of texture images; [[:]] and
- pixel blending to overlapped texture images between the mesh models.

Claim 2 (original): The method as claimed in claim 1, wherein the mesh model reconstructing step comprises:

- selecting a generic model according to the original measured data;
- adjusting dimension and spatial position of the generic model to overlap with the original measured data; and
- mapping data of the generic model with the original measured data to deform the generic model data to be close to the original measured data.

Claim 3 (currently amended): The method as claimed in claim 1, wherein the color abstracting step is to establish texture-mapping relationship between ~~two-dimensional~~ two-dimensional image of the original measure data and the generic model, which comprises:

- seeking mapping points of mesh points of the generic model on the original measured data and triangles having the mapping points;
- calculating corresponding texture coordinates of the mapping points; and
- checking continuity of the triangles on the texture images.

Claim 4 (currently amended): The method as claimed in claim 1, wherein the

color harmonizing step comprises:

rearranging sequence of measured data according to the overlapped relationship and the magnitude of the overlapping area to be $M'=\{M'_1, M'_2, \dots, M'_n\}$, wherein M'_n represents data consisting of n ~~three-dimensional~~ three-dimensional mesh models M' ;

calculating color adjustment A_i ($i=1, 2, 3 \dots n$) of the texture image of each original measured data; and

adjusting color average of the overlapped area.

Claim 5 (currently amended): The method as claimed in claim 2, wherein the color harmonizing step comprises:

rearranging sequence of measured data according to the overlapped relationship and the magnitude of the overlapping ~~area~~ area to be $M'=\{M'_1, M'_2, \dots, M'_n\}$, wherein M'_n represents data consisting of n ~~three-dimensional~~ three-dimensional mesh models M' ;

calculating color adjustment A_i ($i=1, 2, 3 \dots n$) of the texture image of each original measured data; and

adjusting color average of the overlapped area.

Claim 6 (currently amended): The method as claimed in claim 3, wherein the color harmonizing step comprises:

rearranging sequence of measured data according to the overlapped relationship and the magnitude of the overlapping area to be $M'=\{M'_1, M'_2, \dots, M'_n\}$, wherein M'_n represents data consisting of n ~~three-dimensional~~ three-dimensional mesh models M' ;

calculating color adjustment A_i ($i=1, 2, 3 \dots n$) of the texture image of each original measured data; and

adjusting color average of the overlapped area.

Claim 7 (cancelled)

Claim 8 (original): The method as claimed in claim 4, wherein A_i
$$=(A_{i,1} \times W_{i,1} + \dots + A_{i,i-1} \times W_{i,i-1}) / (W_{i,1} + \dots + W_{i,i-1})$$

where W_i is mesh influenced weight value.

Claim 9 (original): The method as claimed in claim 5, wherein A_i
$$=(A_{i,1} \times W_{i,1} + \dots + A_{i,i-1} \times W_{i,i-1}) / (W_{i,1} + \dots + W_{i,i-1})$$

where W_i is mesh influenced weight value.

Claim 10 (original): The method as claimed in claim 6, wherein A_i
$$=(A_{i,1} \times W_{i,1} + \dots + A_{i,i-1} \times W_{i,i-1}) / (W_{i,1} + \dots + W_{i,i-1})$$

where W_i is mesh influenced weight value.

Claim 11 (cancelled)

Claim 12 (original): The method as claimed in claim 1, wherein the pixel
blending step to the overlapped texture image comprises:
seeking the overlapped images covered by each triangle within overlapped areas;
calculating distances of vertices of each of the triangles within the overlapped
areas to nearest edges of corresponding mesh; and
calculating pixel weight average to mapping area corresponding to each triangle.

Claim 13 (original): The method as claimed in claim 2, wherein the pixel
blending step to the overlapped texture image comprises:
seeking the overlapped images covered by each triangle within overlapped areas;
calculating distances of vertices of each of the triangles within the overlapped
areas to nearest edges of corresponding mesh; and
calculating pixel weight average to mapping area corresponding to each triangle.

Claim 14 (original): The method as claimed in claim 3, wherein the pixel
blending step to the overlapped texture image comprises:
seeking the overlapped images covered by each triangle within overlapped areas;
calculating distances of distal points of each of the triangles within the overlapped
areas to nearest edges of corresponding mesh; and
calculating pixel weight average to mapping area corresponding to each triangle.

Claim 15 (original): The method as claimed in claim 4, wherein the pixel

blending step to the overlapped texture image comprises:

- seeking the overlapped images covered by each triangle within overlapped areas;
- calculating distances of vertices of each of the triangles within the overlapped areas to nearest edges of corresponding mesh; and
- calculating pixel weight average to mapping area corresponding to each triangle.

Claim 16 (original): The method as claimed in claim 8, wherein the pixel

blending step to the overlapped texture image comprises:

- seeking the overlapped images covered by each triangle within overlapped areas;
- calculating distances of vertices of each of the triangles within the overlapped areas to nearest edges of corresponding mesh; and
- calculating pixel weight average to mapping area corresponding to each triangle.

Claim 17 (cancelled)